

2.2.2.4 Alternative Site 3A

Site 3A is located adjacent to the east side of the existing transmission line corridor on BLM lands southwest of Achenbach Canyon Road (Figure 2-5). This alternative site would include a pre-fabricated, textured concrete wall, painted Beetle (from the BLM Standard Environmental Colors Chart CC-001: June 2008) in color, around the perimeter of the substation and a minimum height of 8 feet. In addition to the 3.7-acre substation parcel (400 × 400 feet in size), this site would require a new, approximately 500-foot-long substation connection corridor to connect the substation to the existing Salopek-to-Arroyo 115-kV transmission line. The proposed substation site and substation connection corridor would be located on BLM land. Access to Site 3A would also require a new approximately 0.3-mile-long permanent substation access road from Achenbach Canyon Road near the Talavera Fire Station, that would be located within a 50-foot wide ROW for the access road (see Figure 2-5). The substation access road would be designed and constructed to meet the payloads of the substation equipment and transport vehicles. Typically, the road would have a minimum of a 25-foot-wide travel surface with drainage features. The road would have a minimum of 12-inches of road base, no more that 8% slope, and graded to shed water during rain events. Road would be capped with a finishing road material to prevent degrading and provide a low maintenance travel surface. The cap material would be determined during the design of the road, and would consist of asphalt, gravel, crusher fine, or other similar material commonly used for road construction. Substation access road must be accessible at all times in all-weather conditions. This road would contain the distribution options 3A-O and 3A-U if those distribution options were selected.

In addition to the project components discussed above in Section 2.2.1, Site 3A includes three design options for additional distribution routing that would be required for this proposed substation location. The site of the proposed substation and substation connection corridor are the same for all three options. Construction of the substation, additional distribution routing, and substation connection corridor for Alternative Site 3A would take 16 to 20 months to complete, during which time the distribution line facilities would also be constructed.

Summaries of proposed lengths and acreages of disturbance for each design option for Site 3A are presented in Table 2-5.

Table 2-5. Length and Acreage of Disturbance for Site 3A Design Options

Project Component	Land Ownership	Length (miles)	Proposed Total Disturbance (acres)	Proposed BLM Disturbance (acres)
Option 3A-O				
Talavera Substation (Site 3A) (500 × 500 feet*)	BLM	–	5.7	5.7
Substation connection corridor (400 × 500 feet)	BLM	<0.1	4.6	4.6
Substation access road (within 50-foot ROW [†])	BLM	0.0	0.0	0.0
Overhead distribution (50-foot ROW within road ROW)	BLM	0.8	4.9	4.9
	Private [‡]	1.0	6.0	–
Option 3A-O Total proposed disturbance (acres)			21.2	15.2

Project Component	Land Ownership	Length (miles)	Proposed Total Disturbance (acres)	Proposed BLM Disturbance (acres)
Option 3A-U				
Talavera Substation (Site 3A) (500 × 500 feet*)	BLM	–	5.7	5.7
Substation connection corridor (400 × 500 feet)	BLM	0.4	4.6	4.6
Substation access road (within 50-foot ROW)	BLM	0.0	0.0	0.0
Underground distribution (50-foot ROW within road ROW)	BLM	0.8	4.9	4.9
	Private [†]	1.0	6.0	–
Option 3A-U Total proposed disturbance (acres)			21.2	15.2
Option 3A-T				
Talavera Substation (Site 3A) (500 × 500 feet*)	BLM	–	5.7	5.7
Substation connection corridor (400 × 500 feet)	BLM	0.4	4.6	4.6
Substation access road (within 50-foot ROW)	BLM	0.3	1.8	1.8
Overhead distribution (50-foot ROW between existing Transmission lines)	BLM	0.7	4.2	4.2
	Private	0.3	1.6	–
Option 3A-T Total proposed disturbance (acres)			17.9	16.3

* Substation footprint includes the 400 × 400-foot ROW, with a 50-foot temporary work buffer on all sides.

† Access road to substation would be located within a 50-foot ROW and would not require additional ground disturbance outside the ROW corridor.

‡ Distribution would be located within an existing utility easement available for utility companies within the Doña Ana County ROW.

Option 3A-O – Overhead Distribution

Option 3A-O would include a 1.8-mile length of 24-kV *overhead* distribution line routed along Dripping Springs and Soledad Canyon Road (see Figure 2-5). This option would include construction of overhead distribution line on both BLM lands and within the existing utility easement in the County ROW. If selected, EPE would route the overhead line within the existing utility easement along these portions of Dripping Springs and Soledad Canyon Roads. In all, this option would result in approximately 21.2 acres of disturbance, including approximately 15.2 acres of BLM lands, for the substation and distribution components.

The distribution line under this design option would be the same as Option 3-O described above (see Section 2.2.3) and consist of single wood poles ranging from 45–50 feet in height, with a typical span length of approximately 260 feet. Pole and cross-arm assembly design would be similar to those distribution components common to all alternatives (see Section 2.2.1, Figures A-1 through A-3 in Appendix A). Final design of the distribution line, including spacing, number of poles, and pole height, would be based on maintaining proper line clearance and safe operation in accordance with NERC requirements and would be dependent on final engineering.

Option 3A-U – Underground Distribution

Option 3A-U would be similar to the overhead option (3A-O), with the exception that the total 1.8-mile 24-kV distribution line would be buried *underground* following the same alignment along Dripping Springs and Soledad Canyon Roads across BLM lands and within the existing utility easement in the County ROW (see Figure 2-5). Similar to the overhead option, Option 3A-U would result in approximately 21.2 acres of disturbance, including approximately 15.2 acres of BLM lands, for the substation and distribution components.

Option 3A-T – Overhead Distribution through Transmission Corridor

Option 3A-T would include the construction of approximately 1-mile, 24-kV *overhead* double circuit distribution line that would be routed through the existing transmission line corridor (see Figure 2-5). Under this option, no distribution line would be constructed along Dripping Springs or Soledad Canyon Roads. If selected, the overhead distribution line would cross both BLM-managed lands and private land through the existing transmission corridor, which would require private easement agreements with landowners. This option, together with the associated substation and access road, would result in approximately 17.9 acres of disturbance, including approximately 16.3 acres of BLM-managed lands. Overhead distribution line design under this option (poles, pole height, spacing) would be the same as described under Option 3A-O above.

Site 3A – Substation Connection Corridor

To tie the proposed Talavera Substation into the electrical grid, Site 3A would require a 400-foot-wide, 500-foot-long ROW on BLM-managed lands to accommodate the transmission structures and distribution structures coming in and out of the new substation (see Figure 2-5). The width of the ROW would be required to accommodate the Salopek-to-Arroyo 115-kV transmission line and distribution lines that would tap into and out of the new substation. In addition to two sets of 3-pole dead-end structures in the connection corridor (see Figure A-4 in Appendix A), this proposed substation location would require replacing eight transmission structure to raise the existing Anthony-to-Arroyo 115-kV transmission and the Newman–Arroyo 345-kV transmission line, so that the Salopek-to-Arroyo 115-kV transmission line can be built under the other transmission lines to Site 3A.

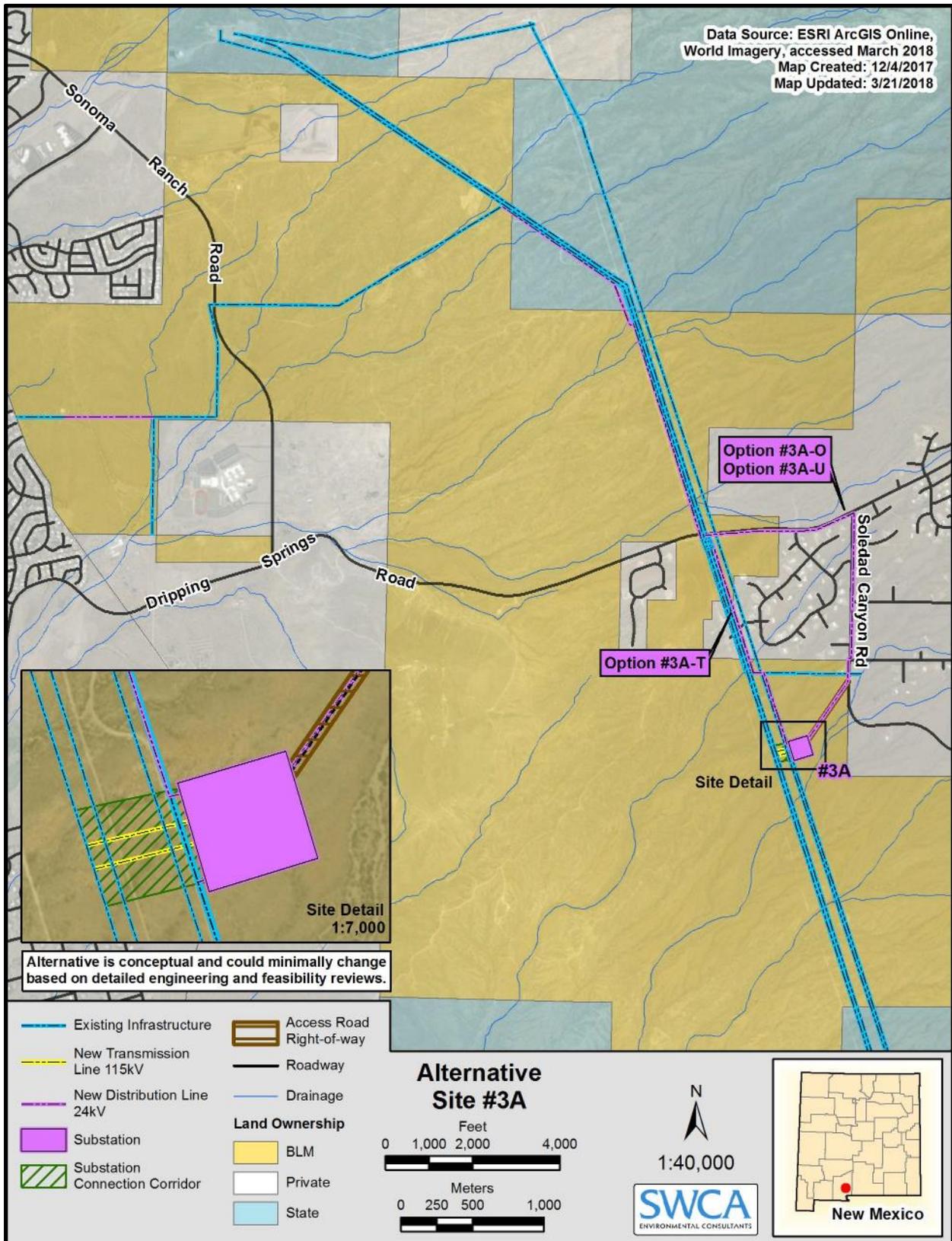


Figure 2-5. Vicinity and location for Alternative Site 3A.